# SEQUENCE LISTING

<110> Satoshi MORI Kyoko Hiquchi

<120> NICOTIANAMINE SYNTHASE AND GENE ENCODING THE SAME

<130> 55107 (71526)

<140> 09/674,337

<141> 2000-10-30

<150> PCT/JP99/02305

<151> 1999-04-30

<160> 22

<170> FastSEO for Windows Version 3.0

<210> 1

<211> 328

<212> PRT

<213> Hordeum vulgare L.

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Phe Leu Tyr Pro Ile Val Asp Pro Glu Asp Ile Arg Arg Gly Phe Glu Val Leu Ala Val His His Pro Glu Gly Glu Val Ile Asn Ser Val 265 260 Ile Val Ala Arg Lys Ala Val Glu Ala Gln Leu Ser Gly Pro Gln Asn 280 Gly Asp Ala His Ala Arg Gly Ala Val Pro Leu Val Ser Pro Pro Cys 300 295 Asn Phe Ser Thr Lys Met Glu Ala Ser Ala Leu Glu Lys Ser Glu Glu 310 315 Leu Thr Ala Lys Glu Leu Ala Phe 325

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<213> Hordeum vulgare L.

<400> 2

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<210> 3 <211> 335 <212> PRT

<213> Hordeum vulgare L.

<400> 3

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Leu	Gly	Met	Phe 100	Pro	Tyr	Tyr	Asn	Asn 105	Tyr	Ile	Asn	Leu	Ser 110	Lys	Leu
Glu	Tyr	Glu 115	Leu	Leu	Ala	Arg	Tyr 120	Val	Pro	Gly	Gly	Tyr 125	Arg	Pro	Ala
Arg	Val 130	Ala	Phe	Ile	Gly	Ser 135	Gly	Pro	Leu	Pro	Phe 140	Ser	Ser	Phe	Val
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Cys	Gly	Ala	Ala	Asn 165	Asp	Arg	Ala	Ser	Lys 170	Leu	Phe	Arg	Ala	Asp 175	Arg
Asp	Val	Gly	Ala 180	Arg	Met	Ser	Phe	His 185	Thr	Ala	Asp	Val	Ala 190	Asp	Leu
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Gly	Met 210	Ala	Ala	Glu	Asp	Lys 215	Ala	Lys	Val	Ile	Ala 220	His	Leu	Gly	Ala
His 225	Met	Ala	Asp	Gly	Ala 230	Ala	Leu	Val	Val	Arg 235	Ser	Ala	His	Gly	Ala 240
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			260		Ala			265					270		
		275			Gln		280					285	_	_	
Gly	Ser 290	Gly	Arg	Gly	Ala	Gly 295	Gly	Gln	Tyr	Ala	Arg 300	Gly	Thr	Val	Pro
Val 305	Val	Ser	Pro	Pro	Cys 310	Arg	Phe	Gly	Glu	Met 315	Val	Ala	Asp	Val	Thr 320
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<212> DNA

<213> Hordeum vulgare L.

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		ggatcgcgac				600
		cgagctcgcc				660
		caaggcgaag				720
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		ccgaggcggg				840
		catcatcgca				900
		cggtggacag				960
		gatggtggcg				1020

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		35					40					45		Cys	
	50					55					60			Gln	
65					70					75			_	Lys	80
				85					90					Leu 95	_
			100					105					110	Ser	_
		115					120				_	125	_	Pro	
	130					135					140			Phe	
145					150					155	_		_	Asp	160
				165					170					Asp 175	
			180					185					190	Asp	
		195			_	_	200					205		Leu	
	210					215					220			Gly	
225					230					235				Gly	240
				245					250		_		_	Arg 255	-
			260					265					270	Val	
		275					280					285		Gly	
	290					295					300	_		Val	
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<211> 329

<212> PRT

<213> Hordeum vulgare L.

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180
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Met Ala Ala Glu Asp Lys Ala Lys Val Ile Ala His Leu Gly Ala His
                        215
Met Ala Asp Gly Ala Ala Leu Val Ala Arg His Gly Ala Arg Gly Phe
                    230
                                         235
Leu Tyr Pro Ile Val Asp Pro Gln Asp Ile Gly Arg Gly Gly Phe Glu
                245
                                    250
Val Leu Ala Val Cys His Pro Asp Asp Asp Val Val Asn Ser Val Ile
            260
                                265
Ile Ala Gln Lys Ser Asn Asp Val His Glu Tyr Gly Leu Gly Ser Gly
                            280
Arg Gly Gly Arg Tyr Ala Arg Gly Thr Val Val Pro Val Val Ser Pro
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Pro Cys Arg Phe Gly Glu Met Val Ala Asp Val Thr Gln Lys Arg Glu
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      <213> Hordeum vulgare L.
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60

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1140

1200

1249

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<211> 282

<212> PRT

<213> Hordeum vulgare L.

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cgtacgtggt aatttttcta ctactcctcc tcctaccacc acctatcacc tatgtatgca

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Gln Va	l Asp 35	Ala	Leu	Phe	Thr	Glu 40	Leu	Val	Ala	Ala	Cys 45	Val	Pro	Ser
Ser Pr 50	o Val	Asp	Val	Thr	Lys 55	Leu	Gly	Pro	Glu	Ala 60	Gln	Glu	Met	Arg
Gln As 65	p Leu	Ile	Arg	Leu 70	Cys	Ser	Ala	Ala	Glu 75	Gly	Leu	Leu	Glu	Ala 80
His Ty	r Ser	Asp	Met 85	Leu	Thr	Ala	Leu	Asp 90	Ser	Pro	Leu	Asp	His 95	Leu
Gly Ar	g Phe	Pro 100	Tyr	Phe	Asp	Asn	Tyr 105	Val	Asn	Leu	Ser	Lys 110	Leu	Glu
His As	p Leu 115	Leu	Ala	Gly	His	Val 120	Ala	Ala	Pro	Ala	Arg 125	Val	Ala	Phe
Ile Gl		Gly	Pro	Leu	Pro 135	Phe	Ser	Ser	Leu	Phe 140		Ala	Thr	Tyr
His Le 145	u Pro	Asp	Thr	Arg 150	Phe	Asp	Asn	Tyr	Asp 155	Arg	Cys	Ser	Val	Ala 160
Asn Gl	y Arg	Ala	Met 165	Lys	Leu	Val	Gly	Ala 170	Ala	Asp	Glu	Gly	Val 175	Arg
Ser Ar		180					185			_		190		
Leu Gl	y Ala 195	Tyr	Asp	Val	Val	Phe 200	Leu	Ala	Ala	Leu	Val 205	Gly	Met	Thr
Ser Ly 21		Lys	Ala	Asp	Ala 215	Ile	Ala	His	Leu	Gly 220	Lys	His	Met	Ala
Asp Gl				230	_				235	_		_		240
Leu Ty			245					250					255	
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<213> Hordeum vulgare L.

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<210> 11 <211> 328 <212> PRT <213> Hordeum vulgare L.

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<210> 12 <211> 1352

-212. DVA

<212> DNA

<213> Hordeum vulgare L.

325

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